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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/814,233

04/01/2004

Bo-Cun Chen

SUND 509

5363

23995

7590

07/07/2006

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EXAMINER

GITOMER, RALPH J

ART UNIT

PAPER NUMBER

1655

DATE MAILED: 07/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/814,233	Applicant(s) CHEN ET AL.	
	Examiner Ralph Gitomer	Art Unit 1655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Foreign priority papers, unribboned, have been received 4/1/04 and no foreign search report is found in this file. Priority is claimed to 8/14/03.

The claimed invention appears to be a two part method where microorganisms in water are concentrated on a filter and stained with KMnO_4 to make them visible. It is well known that KMnO_4 stains cells brown which was an issue when it was frequently used for treating skin conditions such as poison ivy leaving lasting brown stains on everything it contacted including skin. Concentrating cells by filtering is old.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of each of Pahuski, Fleming, and Roth in view of Levenberg.

Pahuski (5,587,286) entitled "Methods and Kits for Detection of Cells in Food Materials" teaches in column 4 lines 37-53, concentrating cellular materials isolated from materials of biological origin for further analyses for undesirable contamination such as employing microscopic examination following use of dyes or stains to render observable cells to be detected. In column 5 first paragraph, the method may be used as a pretreatment method including filtration.

Fleming (US 2002/0055134 A1) entitled "Method and Apparatus for Viable and Nonviable Prokaryotic and Eukaryotic Cell Quantitation" teaches in paragraph 8, samples are filtered through a membrane filter that traps the cells to be counted, dye is applied and cells counted. In paragraph 48 cell determination may be made by using dyes or stains.

Roth (6,699,685) entitled "Method, Test Media and Chromogenic Compounds for Identifying and Differentiating General Coliforms and E. coli Bacteria" teaches in column 1 last paragraph, a membrane filter method where micropore filters are used so that bacteria are retained on the surface of the filter. The filter is then placed on the surface of a medium, incubated, and the bacterial colonies are counted and evaluated.

The claims differ from the above references in that they specify the stain is potassium permanganate.

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Levenberg (US 2005/0031598) entitled "Engineering 3D Tissue Structures Using Differentiating Embryonic Stem Cells" teaches in paragraph 108, staining cells with potassium permanganate.

It would have been obvious to one of ordinary skill in this art at the time the invention was made to stain the cells of the primary references with potassium permanganate as taught by Levenberg because the primary references teach dyes and stains in general and to select any known dye or stain, such as potassium permanganate as taught by Levenberg with the expected result would have been obvious. No unexpected results are taught or claimed by the selection of potassium permanganate.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Each of the following applies in all occurrences.

There are many instances of lack of antecedent basis in the claims, for example in claim 1 line 1, "the presence", line 2, "the step". Claim 1 is a method claim but the claim is incomplete because the only method step is staining which would not perform the preamble function. Standard methods steps may include contacting, determining,

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correlating. In claim 2 "bio-membrane" is not a term of art and is not understood in context. In claim 2 "cultivating" is queried and may be intended to be culturing or growing. In claim 2 "readable microorganisms" is not understood. In claim 3 "the pore" lacks antecedent basis. In claim 8 "time period" is awkward.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sostiaric (Ark Higijenu) teaches staining polluted water with KMnO_4 .

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ralph Gitomer whose telephone number is (571) 272-0916. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on (571) 272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Ralph Gitomer
Primary Examiner
Art Unit 1655

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